

irradiating said non-single crystalline semiconductor film with light to crystallize said semiconductor film wherein said semiconductor film is melted at least partly and a plurality of protrusions are formed on the crystallize semiconductor film;

patterning the crystallized semiconductor film into at least one semiconductor island to form a channel region, the semiconductor island not overlapping with the heat absorbing layer;

forming a gate insulating film on the semiconductor island; and

forming a gate electrode on said gate insulating film,

wherein a longitudinal edge of said heat absorbing layer is approximately parallel to a channel length direction of said semiconductor island.

21. (Amended) A method according to claim 20 wherein said heat absorbing layer comprises a metal selected from the group consisting of Cr, Mo, Ti, Ta and W.

22. (Amended) A method of manufacturing a semiconductor device comprising:
forming a heat absorbing layer comprising a metal over a substrate;
forming a first insulating film over said heat absorbing layer;
forming a non-single crystalline semiconductor film on said first insulating film;
irradiating said non-single crystalline semiconductor film with light to crystallize said semiconductor film wherein said semiconductor film is melted at least partly and a plurality of protrusions are formed on the crystallize semiconductor film;

patterning the crystallized semiconductor film into at least one semiconductor island having a channel region therein, the semiconductor island not overlapping with the heat absorbing layer;

forming a gate insulating film on the semiconductor island; and

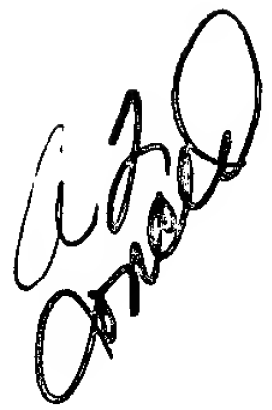
forming a gate electrode on said gate insulating film,

wherein a longitudinal edge of the heat absorbing layer is parallel to a channel length direction of the semiconductor island, and

wherein said protrusions are formed so that first regions of said channel region has a larger number of said protrusions and second regions of said channel region has no

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cont.

or a smaller number of said protrusions, and said first and second regions appear in turn in a direction orthogonal to the channel length direction of the semiconductor island.

 23. (Amended) A method according to claim 22 wherein said heat absorbing layer comprises a metal selected from the group consisting of Cr, Mo, Ti, Ta and W.

24. (Amended) A method according to claim 22 wherein said a height of said protrusions is at least 30 nm. --
